MITSUBISHI ELECTRIC

sRGB

ENGLISH

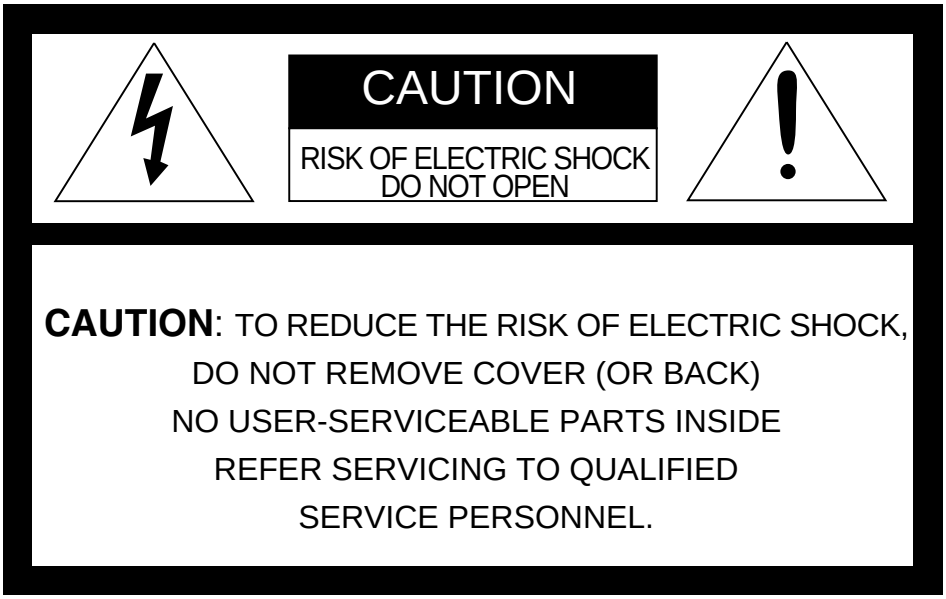
DATA PROJECTOR

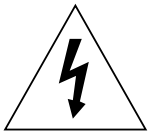
**MODEL**

# XD300U

User Manual

XD300


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

# CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

# NOTE:

SINCE THIS PROJECTOR IS PLUGGABLE EQUIPMENT, THE SOCKET-OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

**WARNING**
Use the attached specified power supply cord. If you use another power-supply cord, it may cause interference with radio and television reception.

Use the attached RS-232C cable, PS/2 adapter cable, USB adapter cable and RGB cable with this equipment so as to keep interference within the limit of a FCC Class B device.

This apparatus must be grounded.

**DO NOT LOOK DIRECTLY INTO THE LENS WHEN PROJECTOR IS IN THE POWER ON MODE.**

**When using the projector in Europe**
**COMPLIANCE NOTICE**
This Projector complies with the requirements of the EC Directive 89/336/EEC "EMC Directive" as amended by Directive 93/68/EEC and 73/23/EEC "Low Voltage Directive" as amended by Directive 93/68/EEC.

The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

**WARNING**
Use the attached RS-232C cable, PS/2 adapter cable, USB adapter cable and RGB cable with this equipment so as to keep interference within the limit of a EN55022 Class B. Please follow WARNINGS instructions.

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**Trademark, Registered trademark**
Macintosh is registered trademark of Apple Computer Inc.
DLP, Digital Micromirror Device and DMD are all trademarks of Texas Instruments.
DCDi is a trademark of Faroudja, a division of Genesis Microchip Corp.
Other brand or product names are trademarks or registered trademarks of their respective holders.

# *Important safeguards*

Please read all these instructions regarding your projector and retain them for future reference. Follow all warnings and instructions marked on the projector.

1. Read instructions
   All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions
   The safety and operating instructions should be retained for future reference.
3. Warnings
   All warnings on the appliance and in the operating instructions should be adhered to.
4. Instructions
   All operating instructions must be followed.
5. Cleaning
   Unplug this projector from the wall outlet before cleaning it. Do not use liquid aerosol cleaners. Use a damp soft cloth for cleaning.
6. Attachments and equipment
   Never add any attachments and/or equipment without the approval of the manufacturer as such additions may result in the risk of fire, electric shock or other personal injury.
7. Water and moisture
   Do not use this projector near water or in contact with water.
8. Accessories
   Do not place this projector on an unstable cart, stand, tripod, bracket or table. Use only with a cart, stand, tripod bracket, or table recommended by the manufacturer or sold with the projector. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.

   An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.

9. Ventilation
   Slots and openings in the cabinet are provided for ventilation, ensuring reliable operation of the projector and to protect it from overheating. Do not block these openings or allow them to be blocked by placing the projector on a bed, sofa, rug, or bookcase. Ensure that there is adequate ventilation and that the manufacturer's instructions have been adhered to.
10. Power sources
    This projector should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power, please consult your appliance dealer or local power company.
11. Power-cord protection
    Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and points where they exit from the appliance. Do not put the power cord under a carpet.
12. Overloading
    Do not overload wall outlets and extension cords as this can result in a fire or electric shock.
13. Objects and liquids
    Never push objects of any kind through openings of this projector as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the projector.
14. Servicing
    Do not attempt to service this projector yourself. Refer all servicing to qualified service personnel.
15. Damage requiring service
    Unplug this projector from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    (a) If the power-supply cord or plug is damaged.
    (b) If liquid has been spilled, or objects have fallen into the projector.
    (c) If the projector does not operate normally after you follow the operating instructions. Adjust only those controls that are covered by the operating instructions. An improper adjustment of other controls may result in damage and may often require extensive work by a qualified technician to restore the projector to its normal operation.
    (d) If the projector has been exposed to rain or water.
    (e) If the projector has been dropped or the cabinet has been damaged.
    (f) If the projector exhibits a distinct change in performance - this indicates a need for service.
16. Replacement parts
    When replacement parts are required, be sure that the service technician has used replacement parts specified by the manufacturer or parts having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
17. Safety check
    Upon completion of any service or repair to this projector, ask the service technician to perform safety checks determining that the projector is in a safe operating condition.

**WARNING:**

## Unplug immediately if there is something wrong with your projector.

Do not operate if smoke, strange noise or odor comes out of your projector. It might cause fire or electric shock. In this case, unplug immediately and contact your dealer.

## Never remove the cabinet.

This projector contains high voltage circuitry. An inadvertent contact may result in an electric shock. Except as specifically explained in the Owner's Guide, do not attempt to service this product yourself. Please contact your dealer when you want to fix, adjust or inspect the projector.

## Do not modify this equipment.

It can lead to fire or electric shock.

## If you break or drop the cabinet.

Do not keep using this equipment if you break or drop it. Unplug the projector and contact your dealer for inspection. It may lead to fire if you keep using the equipment.

## Do not face the projector lens to the sun.

It can lead to fire.

## Use correct voltage.

If you use incorrect voltage, it can lead to fire.

## Do not place the projector on uneven surface.

Place the projection on a leveled and stable surface only. Please do not place equipment on unstable surfaces.

Do not look into the lens when it is operating. It may hurt your eyes.

Never let children look into the lens when it is on.

## Do not turn off the main power abruptly or unplug the projector during operation.

It can lead to lamp breakage, fire, electric shock or other trouble. It is best to wait for the fan to turn off before turning main power off.

## Do not touch Air outlet grille and Bottom plate which becomes hot.

Do not touch them or put other equipment in front of Air outlet grille. The heated Air outlet grille and Bottom plate may cause injury or damage to other equipment. Also, do not set the projector on the desk which is easily affected by heat.

## Do not look into the air outlet grille when projector is operating.

Heat, dust etc. may blow out of it and hurt your eyes.

**Place of installation**

For safety's sake, refrain from setting the projector at any place subjected to high temperature and high humidity. Please maintain an operating temperature, humidity, and altitude as specified below.

- Operating temperature: between +41°F (+5°C) and +95°F (+35°C)
- Operating humidity: between 30 and 90%
- Never put any heat-producing device under the projector so that the projector does not overheat.
- Do not attach the projector to a place that is unstable or subject to vibration.
- Do not install the projector near any equipment that produces a strong magnetic field. Also refrain from installing near the projector any cable carrying a large current.
- Place the projector on a solid, vibration free surface: otherwise it may fall, causing serious injury to a child or adult, and serious damage to the product.
- Do not stand the projector: it may fall, causing serious injury and damage to the projector.
- Slanting the projector more than ±10˚(right and left) or ±15˚ (front and rear) may cause trouble or explosion of the lamp.
- Do not place the projector near air-conditioning unit or heater to avoid hot air to the exhaust and ventilation hole of the projector.

## COMPLIANCE NOTICE OF FCC

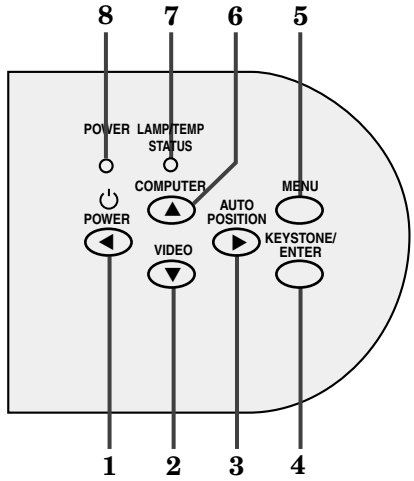
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced Radio / TV technician for help.

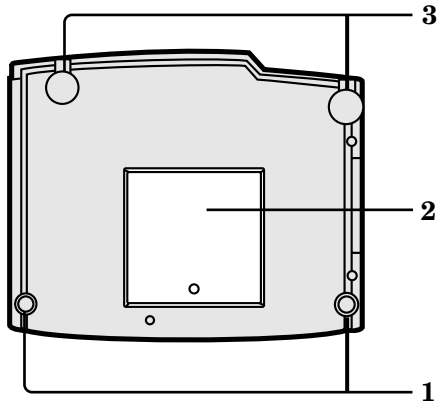
Changes or modifications not expressly approved by Mitsubishi could void the user's authority to operate this equipment.

## COMPLIANCE NOTICE OF INDUSTRY CANADA

This Class B digital apparatus complies with Canadian ICES-003.


8
7
6
5
POWER
LAMP/TEMP STATUS
COMPUTER
MENU
POWER
AUTO POSITION
KEYSTONE/ ENTER
VIDEO
1
2
3
4

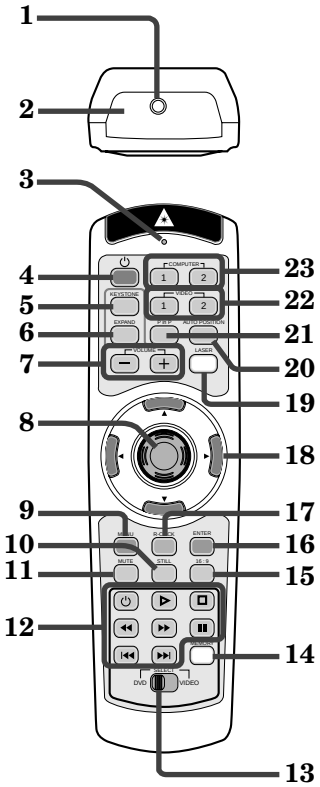
## Bottom side

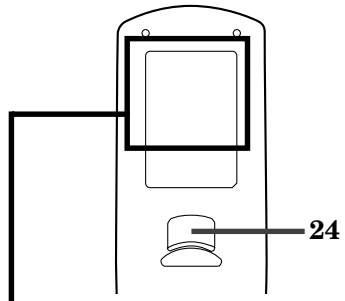



**1 Rear adjustment feet**
**2 Lamp cover**
**3 Front adjustment feet**

**Caution:**
Do not replace the lamp right after using the projector. The lamp is very hot.

## Remote control



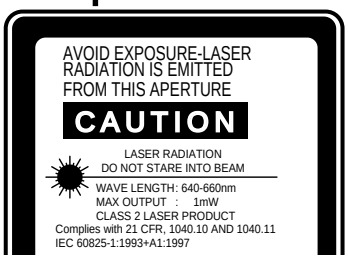




**1 Laser aperture**
**2 Transmission window**
**3 Indicator**
**4 POWER button**
**5 KEYSTONE button**
**6 EXPAND button**
**7 + , – (VOLUME) buttons**
**8 Mouse pointer**
**9 MENU button**
**10 STILL button**
**11 MUTE button (Audio/Video)**
**12 Programmable buttons**
**13 SELECT switch**
**14 MEMORY button**
**15 16 : 9 button**
**16 ENTER button**
**17 R-CLICK button (For mouse)**
**18 Direction buttons**
**19 LASER button**
**20 AUTO POSITION button**
**21 PinP button**
**22 VIDEO 1, 2 button**
**23 COMPUTER 1, 2 button**
**24 Left click button (For mouse)**

- The + and - buttons are used in the KEYSTONE adjustment and the EXPAND mode in addition to the volume control.
- Pressing the LASER button emits a laser beam. Even when you keep holding down the LASER button, it is emitted only one minute. To keep emitting it longer, press the LASER button again.
- You can disable the LASER button to prevent laser radiation due to misuse of the button.

  **How to disable the LASER button**
  While holding the LASER button down, press the ▼ button three times.

  **How to enable the LASER button**
  While holding the LASER button down, press the ▲ button three times.




### About the laser beam

This remote control is a Class 2 laser product. (Max. output : 1 mW, Wavelength : 640-660 nm)
Beam Divergence : 6m distance about 10.0mm x 10.0mm (±6.0mm)

**CAUTION :**

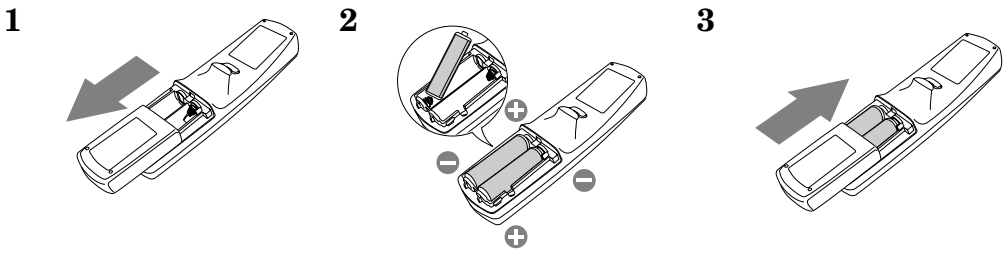
- Pressing the LASER button on the remote control emits a laser beam. Do not look into the laser beam directly. Do not point the laser beam at anyone. Looking at the laser beam directly may damage eyesight.
- Use of controls or adjustments or procedures other than those specified herein may result in hazardous radiation exposure.

# *Using the remote control*

## Battery installation

Use two AA size batteries.

1. Remove the back cover of the remote control by pushing the battery compartment door in the direction of the arrow.
2. Load the batteries making sure that they are positioned correctly (+ to +, and - to -).
   - Load the batteries from - spring side, and make sure to set them tightly.
3. Replace the back cover.

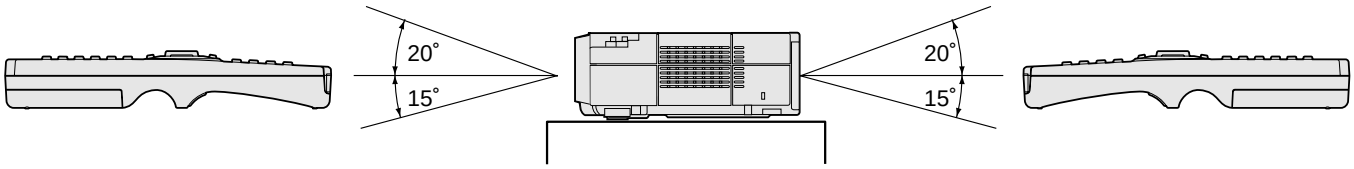


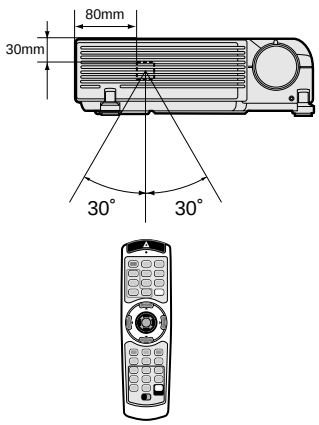

**Important:**

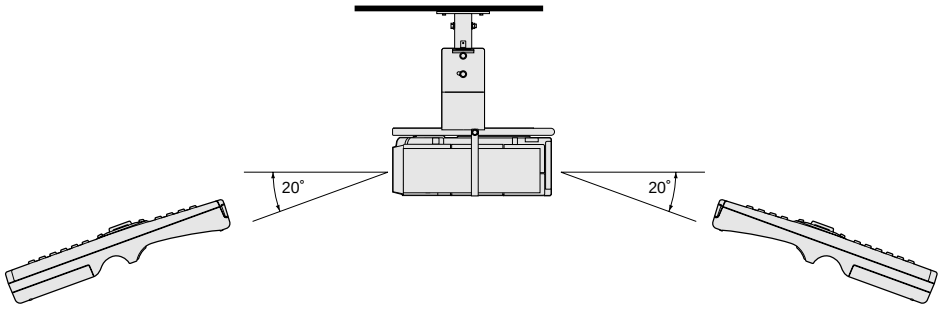
- Do not combine a new battery with an old one.
- Load batteries in the correct position.
- Do not heat, take apart, or throw batteries into fire.
- Do not try to recharge batteries. Do not use rechargeable batteries.
- If the solution of batteries comes in contact with your skin or clothes, rinse with water. If the solution comes in contact with your eyes, rinse them with water and then consult your doctor.

## Operation area

The range for operation is about 10 m (33 feet) when the remote control points to the projector. The distance to the screen back to the projector must be less than 6 m (20 feet). Depending on the type of screen, the effective distance may be different.




**Important:**

Avoid direct sunlight or fluorescent light on the remote control sensor. Also keep the distance of more than 2 m between the remote control sensor and fluorescent lamp or the remote control may not work correctly. The remote control may become less effective near an inverter fluorescent lamp. In such a case, put the attached light-shielding seal on of the remote control sensors that is closer to the fluorescent lamp.

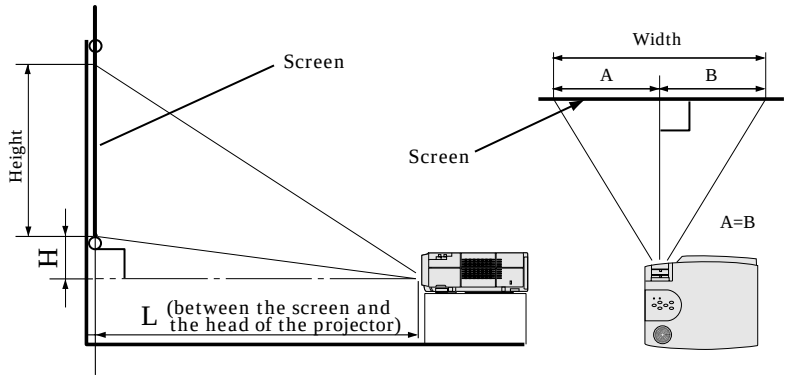
# Installation



## Orientation of the projector

Picture size can be set by changing the distance between the screen and the projector.

**Front projection**




To find the approximate distance between the projector and screen:
Multiply the width of the screen x 1.8 (min.) , Multiply the width of the screen x 2.3 (max.).

- Refer to the chart for recommended distances in maximum zoom and minimum zoom.

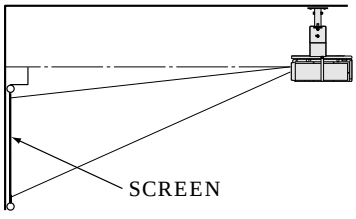
| Screen | | | | | | Distance from screen (L) / (approximate) | | | | Height projected image (H) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diagonal size | | Width | | Height | | Maximum zoom (WIDE) | | Minimum zoom (TELE) | | | |
| (inch) | (cm) | (inch) | (cm) | (inch) | (cm) | (inch) | (m) | (inch) | (m) | (inch) | (cm) |
| 40 " | 102 | 32 " | 81 | 24 " | 61 | 57 " | 1.5 | 69 " | 1.7 | 6.0 " | 15.2 |
| 60 " | 152 | 48 " | 122 | 36 " | 91 | 87 " | 2.2 | 106 " | 2.7 | 9.0 " | 22.9 |
| 80 " | 203 | 64 " | 163 | 48 " | 122 | 116 " | 2.9 | 143 " | 3.6 | 12.0 " | 30.5 |
| 100 " | 254 | 80 " | 203 | 60 " | 152 | 146 " | 3.7 | 181 " | 4.6 | 15.0 " | 38.1 |
| 150 " | 381 | 120 " | 305 | 90 " | 229 | 219 " | 5.6 | 274 " | 7.0 | 22.5 " | 57.2 |
| 200 " | 508 | 160 " | 406 | 120 " | 305 | 293 " | 7.4 | 367 " | 9.3 | 30.0 " | 76.2 |
| 250 " | 635 | 200 " | 508 | 150 " | 381 | 366 " | 9.3 | 461 " | 11.7 | 37.5 " | 95.3 |
| 300 " | 762 | 240 " | 610 | 180 " | 457 | 440 " | 11.2 | 554 " | 14.1 | 45.0 " | 114.3 |

- The above numbers are approximate, and may be slightly different from the actual measurements.

**Front projection, ceiling mount**

For ceiling mount, you need the ceiling mount kit. Ask a specialist for installation. For more details, consult your dealer.

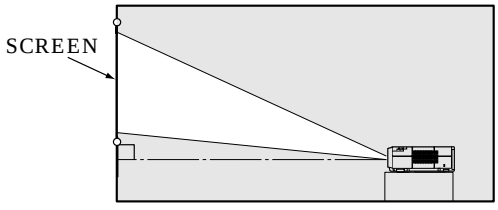
- This warranty does not cover damage caused by the use of any unrecommended ceiling mount kit and the installation of the ceiling mount kit at an improper location.




- When using the ceiling mount, set IMAGE REVERSE in the INSTALLATION menu to MIRROR INVERT. See Page 16.
- Projected images may appear darker when the unit is used as a ceiling installation than when it is used in the tabletop position. This does not signify a product malfunction.

**Rear projection**

Ask a specialist for installation. For more details, consult your dealer.




- For rear projection, set IMAGE REVERSE in the INSTALLATION menu to MIRROR. See Page 16.

**Caution:**

- Placing the projector on a carpet reduces ventilation from the fan at the bottom and might cause problems. Place a hard board or similar item under the projector to facilitate ventilation of the unit.
- Place the projector more than 50cm (20 in.) from the wall to prevent blocking the intake, exhaust slots andventilation of this projector because hot air comes out of it.
- Do not use the projector under the following circumstances, which may cause fire or electric shock.
  - in a dusty or humid place
  - while the projector is lying sideways
  - near a heater
  - in a kitchen or oily, smoky or damp place
  - in direct sunlight
  - where the temperature is lower than +41°F (+5°C) or higher than +95°F (+35°C)

**Important:**

- Do not put stress on the lens, as this may cause damage.

# *Basic connections*

This projector can be connected to equipment such as PC, VCRs, video cameras and DVD players.

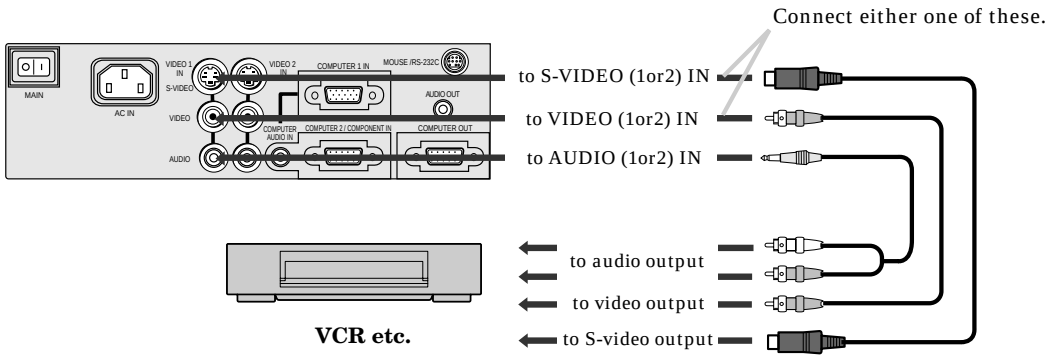
**Important:**

- Make sure that your equipment is turned off before connection.
- Plug in firmly and unplug by holding the plug, not by pulling the AC power cord.
- If connected units are set too close to one another, the image may be affected.
- Refer to the user manual of each component for details of connections.

## Projector + AV equipment

**Important:**

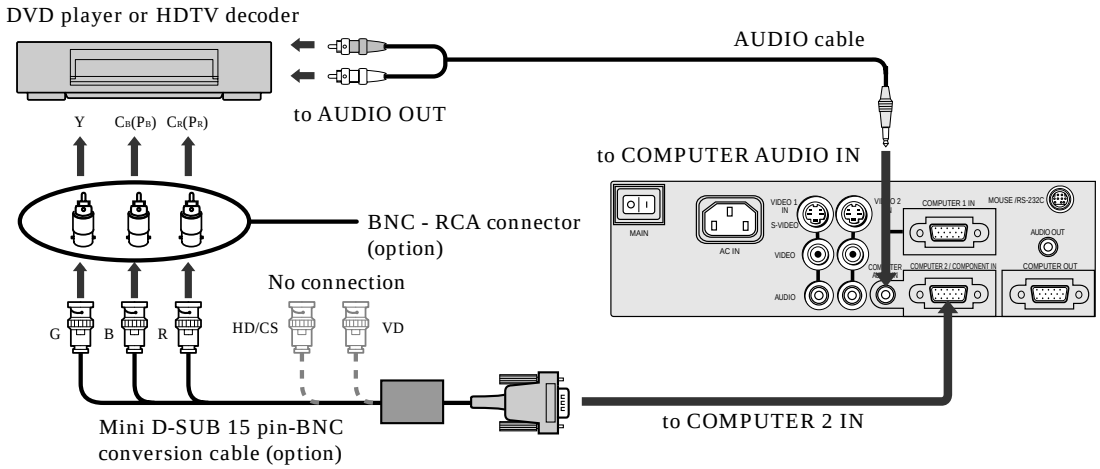
- Match the color of video and audio plugs on the AV cable with the connections.
- S-video signals take priority over video signals. If you input both S-video signals and normal video signals at the same time, the normal video input automatically is inhibited.




- Speaker output is mono.

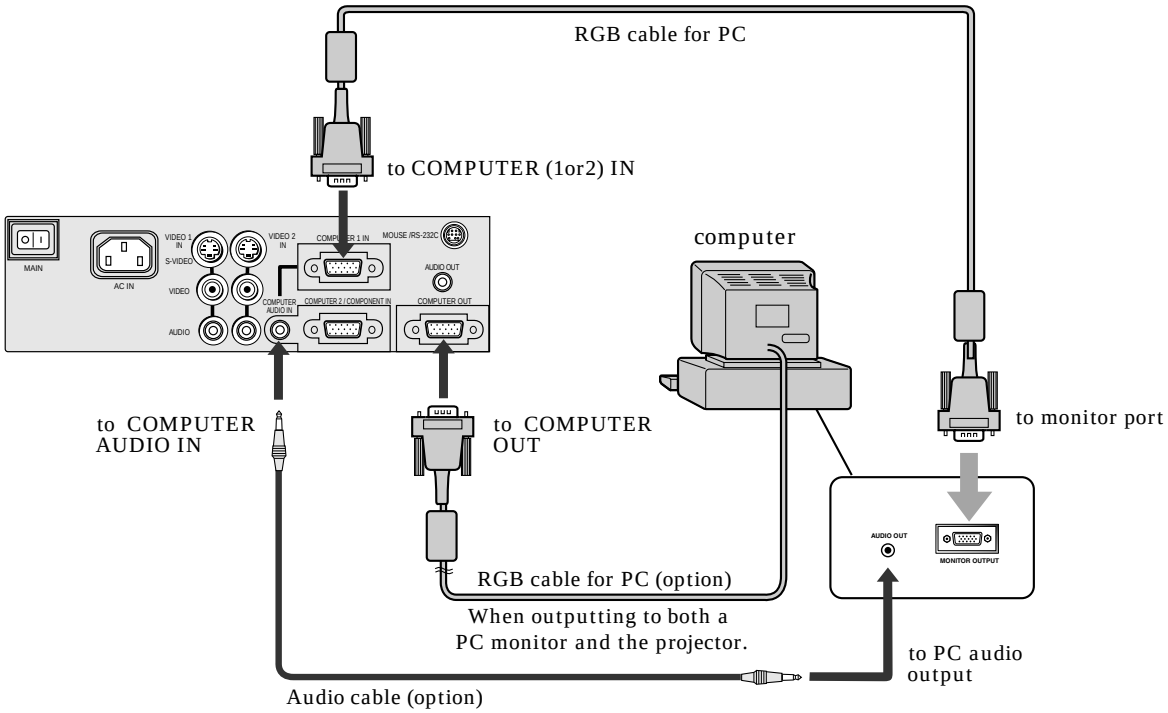
## Projector + DVD player or HDTV decoder

In the case of a DVD player equipped with a COMPONENT VIDEO output (525i / 625i), connect the DVD player with the COMPUTER 2 / COMPONENT IN connector.




- When a DVD player is connected with the COMPUTER 1 IN connector, the image may not be projected correctly.
- When a 525p signal is inputted, select $YC_BC_R$/ $YP_BP_R$ for the COMPUTER INPUT in the SIGNAL menu.
- Y, $P_B$, $P_R$ is an example of the terminal names for a HDTV decoder.
- The terminal name is different depending on the connected equipment.
- Use mini D-SUB 15 pin-BNC conversion cable for connection.
- Some DVD players may not project the image correctly.
- When connecting with HDTV equipment which has R, G, B output, select RGB for the COMPUTER INPUT in the SIGNAL menu.
- A TV60 or TV50 signal (except SCART input signal) corresponds to component video signal only. When the RGB signal with 5 line form is inputted, the image will not be projected correctly.

## Projector + Personal computer




**Important:**

- When you use a long RGB cable instead of the cable provided, the picture quality may deteriorate.
- Connectors or analog RGB output adapters may be necessary depending on the PC connected to this projector. Please contact your dealer.
- The audio input for this projector is a stereo pin jack. (Speaker output is mono.) Please check the available cable for the audio input terminal of the PC. Some personal computer may not have the audio output terminal.

**For using Macintosh**

- A monitor output adapter is necessary for a Macintosh if it has no video port. Please contact your dealer.
- A MAC adapter for RGB cable may be necessary depending on the personal computer connected to this projector. Please contact your dealer.

**About DDC™**

The COMPUTER 1 IN terminal of this projector complies with the DDC1/2B standard.
When a computer supporting this standard is connected to this terminal, the computer will automatically load the information from this projector and prepare for output of appropriate images.

- After connecting a computer supporting this standard to this terminal, turn on the projector's main power switch first, and then boot up the computer.
- You may need to install the DDC driver, depending on the computer you use. In this case, you need to download the driver from our Web site. Contact your dealer or Mitsubishi sales office for further information.

# *Preparing the projector for operation*

## Getting ready for projection

1. Connect the power cord provided to the projector.
2. Connect the power cord to the wall power outlet.
3. Remove the lens cap.

**Warning:**

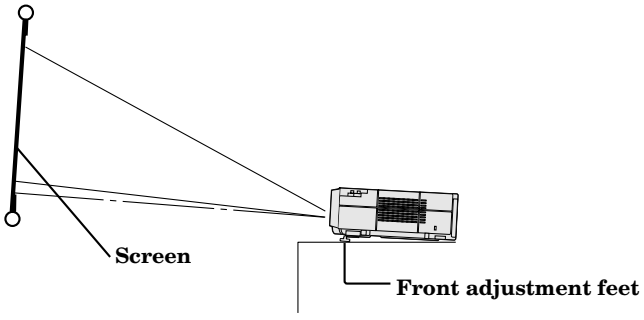
- Do not look directly into the lens when projector is "ON".
- The lens cap is for protecting the lens. If you leave the power on with the cap on, the cap may be warped. Please remove the lens cap when you turn the power on.
- This projector is equipped with the power cords for both U.S. and Europe. Use the appropriate power cord for your country.
- A three-pin grounding type power plug is used with the projector. Do not remove the grounding pin on the power plug. If you are unable to insert the plug into the outlet, contact your electrician to replace your A/C outlet.
- The supplied power cord for U.S. is used for 120V only. Never connect to any outlet or power supply having a different voltage or frequency. If you connect to the power supply having a different voltage, please use the appropriate power cord.
- Use 100-240V AC 50/60Hz correct voltage otherwise it may lead to fire or electric shock.
- Do not place any objects on the power cord, and keep the projector away from heat sources to avoid breaking the power cord. A broken power cord can cause fire or electric shock.
- Do not revise or alter the power cord otherwise it may cause fire or electric shock.
  Contact your dealer if the cord is broken.

**Caution:**

- Plug in firmly and unplug by holding the plug, not by pulling the cable out.
- Do not plug in or out with wet hands. It may cause an electric shock.

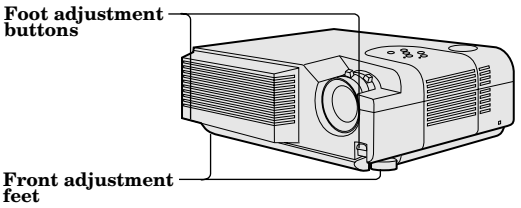
## Adjusting the angle of projection

For the best result, project onto a flat screen with a 90 degree angle to the floor. If necessary, tilt the projector by adjusting the adjustment feet on the bottom of the projector.




1. Lift the projector to an appropriate angle.
2. Press the foot adjustment buttons, and the front adjustment feet will slide out to their appropriate positions.
3. Release the foot adjustment buttons to fix the feet in those positions.
4. Turn the feet for fine adjustment.

- The projection angle can be adjusted by turning the rear adjustment feet.




After using the projector

5. Put the front adjustment feet back into the projector.

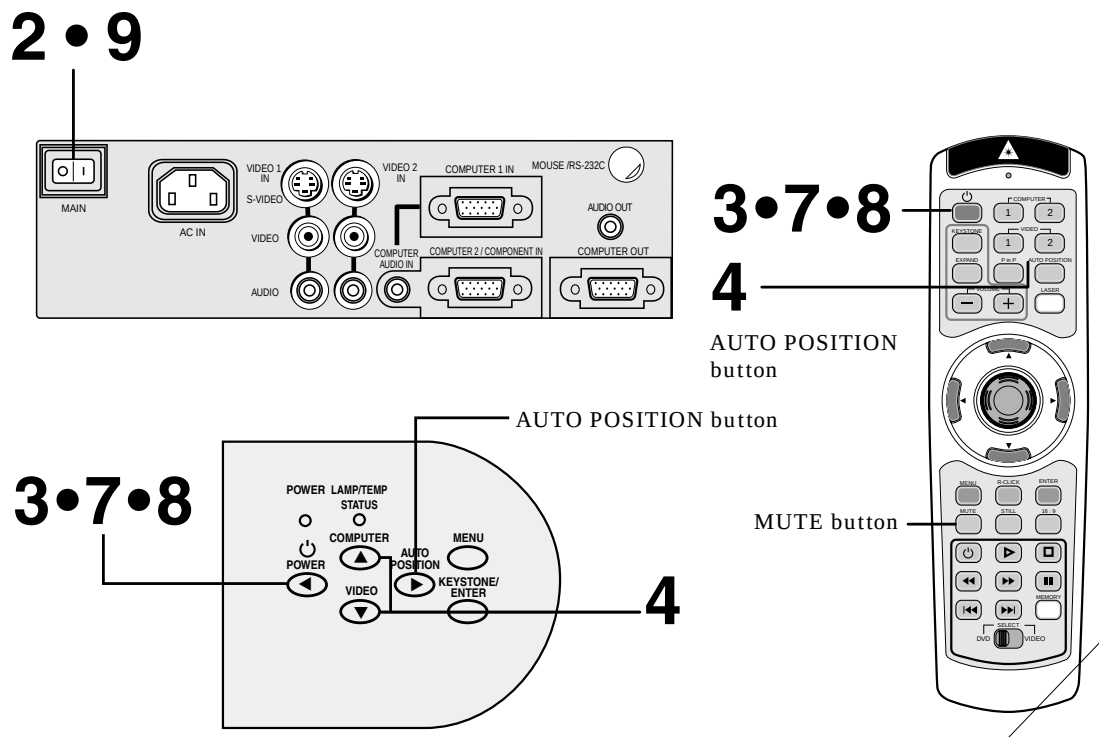
- Install the screen on a flat wall at 90 degrees to the floor.
- Position the projector so that it projects an image filling the screen as illustrated on page 9.
- Keep an appropriate distance from the projector to the screen according to the screen size chart on page 9.
- The image distorts to be trapezoidal in shape as the screen or projector is tilted. Use KEYSTONE button and ◀, ▶, ▲ or ▼ buttons to correct the distortion. Due to this correction, however, the circumference of the image may become out of focus.
- The projector shall be installed at a tilting angle within 15 degrees, but the keystone adjustment angle can be set exceeding 15 degrees.

**Important:**

- Noise may appear on the screen during the keystone adjustment depending on the type of video signal being projected. This is not a failure. In such a case, reduce the keystone correction value to eliminate the noise.
- You can correct the vertical and horizontal keystones at the same time. In such a case, the upper limits of the correction values for the vertical and horizontal keystones vary as their adjustable ranges change in relation to each other.
- The image may not be projected in a shape of a regular rectangle or with its aspect ratio of 4:3, depending on the installation conditions of the projector and the screen.
- When the keystone adjustment is carried out, the adjustment value is indicated. Note that this value doesn't mean a projection angle.
- The allowable range of the adjustment value in the keystone adjustment will vary depending on the installation conditions.
- When the keystone adjustment takes effect, the resolution decreases, and strips appear or straight lines bend in images with complicated patterns. They are not due to a failure of the projector.

# To operate projector power ON






1. Turn on the equipment connected to the projector.
2. Put the projector into standby mode by pressing the main power switch. The POWER indicator lights up red.
3. Turn the projector on by pressing the POWER button. The light source lamp starts warming up, eventually turning completely on.
   - When the light source lamp does not light up, wait until the STATUS indicator is turned off, then press the POWER button again.
   - If the main power switch to the unit is turned off within two minutes of turning off the light source lamp, power will not be applied to the lamp for one minute when the next time the main unit power switch is turned on. When this happens, the STATUS indicator will blink for one minute.

| Indicator / Condition | POWER | STATUS |
|---|---|---|
| Stand-by | Red | - |
| When light source lamp is on | Green | Green |
| Light source lamp held off temporarily | Red | - |

**Important:**

- A darkened image may be seen right after pressing the POWER button due to warming up of this projector. While warming up, no other commands can be accepted.
- After the power is turned on, the screen may flicker before the lamp operation becomes stable. This is due to the characteristics of the lamp, not a failure of the lamp.
- When the STATUS indicator is blinking red, the lamp should be replaced. Replace the lamp. See pages 24 and 26.
- The picture might not be of optimum performance in extreme hot or cold conditions. (The projector is not malfunctioning.)

4. Select the desired external input source by using the COMPUTER 1,2 or VIDEO 1, 2 button on the remote control or the COMPUTER or VIDEO button on the contorol panel.
   - Pressing the VIDEO button on the control panel repeatedly will select VIDEO IN 1 and VIDEO IN 2.
   - Pressing the COMPUTER button on the control panel repeatedly will select COMPUTER IN 1 and COMPUTER IN 2.
   - The COMPUTER or VIDEO button does not work when MENU is displayed.
   - The projector automatically selects the appropriate signal format. The selected signal format is displayed on the screen.
   - When selecting the COMPUTER input, the image may flicker. Press the ◀ or ▶ button to adjust the image.
5. Adjust the image size with the zoom ring by turning it.
6. Adjust the focus with the focus ring by turning it.

## Turning off the projector

7. Press the POWER button.
   The message "POWER OFF? YES : PRESS AGAIN" appears on the screen.
8. Press the POWER button within 10 seconds again.

- The light source lamp will be turned off.
- When the POWER button is not pressed within 10 seconds, the message will be disappeared.
- Pressing the POWER button second time will shut off the light source lamp, but the exhaust fan continues to operate for 120 seconds to cool down the light source lamp.

9. Turn off the main power switch. When turning off the main switch, the POWER indicator turns off.

- In cases where the main power switch is accidentally turned off when either the intake/exhaust fan or the power source lamp is in operation, allow the unit to cool down for 10 minutes with the power turned off. Repeat step 3 when turning on the power source lamp. If the lamp does not turn on immediately, repeat this step two or three times. Replace the lamp if it should still fail to turn on.

**AUTO POSITION button**

When the source is selected to COMPUTER and the image is not in the right place, follow as shown below.

1. Set screen to the brightest display as possible (e.g., full-screen display of the "Trash" window).
2. If the screen saver is running, turn off the screen saver.
3. Press the AUTO POSITION button.

- If the image is still not in the right place, adjust the image position by using the SIGNAL menu.

**The volume from the speaker**

Press the VOLUME + or – button to change the volume from the speaker.
The volume control bar will appear on the screen.

- The volume control bar will disappear about 10 seconds after releasing the volume buttons.
- The volume buttons do not work when MENU selection bar or MENU is displayed.
- The volume from the AUDIO OUT jack is also changed by pressing the VOLUME + or – button on the remote control.

**AV mute**

Image and audio are temporarily erased with pressing the MUTE button. To restore the image and audio to the normal mode, press the MUTE button again.

- The audio from the AUDIO OUT jack is also muted by pressing the MUTE button.
- If the MUTE MODE in the INSTALLATION menu is set to IMAGE, the splash screen will appear by pressing the MUTE button.
- You can alter the splash screen freely. See page 23.

**ANAMORPHIC mode**

When playing DVD discs containing data of letterboxed image, press the 16:9 button. Exit the ANAMORPHIC mode, by pressing the 16:9 button again.

**Caution:**

- When you have finished using this equipment, wait 120 seconds for the exhaust fans to stop. Then turn off the main switch and unplug the power cable from the wall outlet, for safety purposes.
- After the lamp is turned off, the lamp cannot be switched on again for 60 seconds as a precautionary measure. It will take another 60 seconds before the STATUS indicator goes off. If you wish to turn on the projector again, wait until the indicator is off then press the POWER button.
- The exhaust fan rotates faster when the temperature around the projector rises.
- When the temperature around the projector becomes too high, the sign "TEMPERATURE!!" blinks red on the screen. If the temperature stays too high, the lamp will be shut off automatically.

# Menu operation



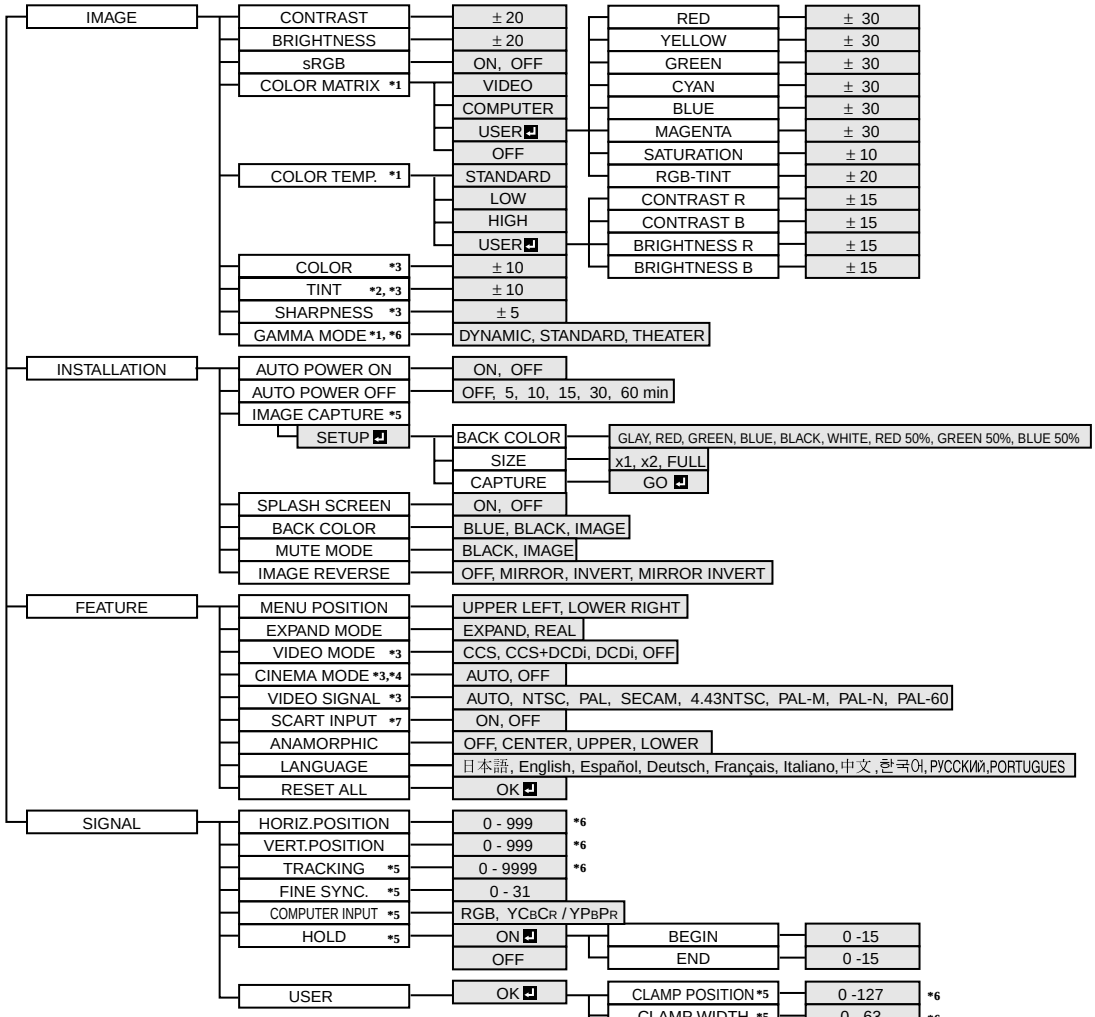


IMAGE
CONTRAST ± 20
BRIGHTNESS ± 20
sRGB ON, OFF
COLOR MATRIX *1 VIDEO
COMPUTER
USER
OFF
COLOR TEMP. *1 STANDARD
LOW
HIGH
USER
COLOR *3 ± 10
TINT *2, *3 ± 10
SHARPNESS *3 ± 5
GAMMA MODE *1, *6 DYNAMIC, STANDARD, THEATER
RED ± 30
YELLOW ± 30
GREEN ± 30
CYAN ± 30
BLUE ± 30
MAGENTA ± 30
SATURATION ± 10
RGB-TINT ± 20
CONTRAST R ± 15
CONTRAST B ± 15
BRIGHTNESS R ± 15
BRIGHTNESS B ± 15
INSTALLATION
AUTO POWER ON ON, OFF
AUTO POWER OFF OFF, 5, 10, 15, 30, 60 min
IMAGE CAPTURE *5
SETUP
BACK COLOR GLAY, RED, GREEN, BLUE, BLACK, WHITE, RED 50%, GREEN 50%, BLUE 50%
SIZE x1, x2, FULL
CAPTURE GO
SPLASH SCREEN ON, OFF
BACK COLOR BLUE, BLACK, IMAGE
MUTE MODE BLACK, IMAGE
IMAGE REVERSE OFF, MIRROR, INVERT, MIRROR INVERT
FEATURE
MENU POSITION UPPER LEFT, LOWER RIGHT
EXPAND MODE EXPAND, REAL
VIDEO MODE *3 CCS, CCS+DCDi, DCDi, OFF
CINEMA MODE *3,*4 AUTO, OFF
VIDEO SIGNAL *3 AUTO, NTSC, PAL, SECAM, 4.43NTSC, PAL-M, PAL-N, PAL-60
SCART INPUT *7 ON, OFF
ANAMORPHIC OFF, CENTER, UPPER, LOWER
LANGUAGE 日本語, English, Español, Deutsch, Français, Italiano, 中文, 한국어, РУССКИЙ, PORTUGUES
RESET ALL OK
SIGNAL
HORIZ.POSITION 0 - 999 *6
VERT.POSITION 0 - 999 *6
TRACKING *5 0 - 9999 *6
FINE SYNC. *5 0 - 31
COMPUTER INPUT *5 RGB, YCBCR / YPBPR
HOLD *5 ON
OFF
BEGIN 0 -15
END 0 -15
USER OK
CLAMP POSITION *5 0 -127 *6
CLAMP WIDTH *5 0 - 63 *6
VERT. SYNC *5 AUTO, OFF
SHUTTER(U) 0 - 20
SHUTTER(L) 0 - 20
SHUTTER(LS) 0 - 20
SHUTTER(RS) 0 - 20

*** 1: The item can not be selected when the sRGB is set to ON.**
*** 2: The item can not be selected with certain signals.**
*** 3: The item can not be selected when the source is selected to COMPUTER**
*** 4: The item can not be selected when the VIDEO MODE is not set to CCS or CCS+DCDi.**
*** 5: The item can not be selected when the selected source is VIDEO or S-VIDEO.**
*** 6: Setting range is different with certain signals.**
*** 7: The item can not be selected when the source is not selected to COMPUTER 2.**

## Basic operation

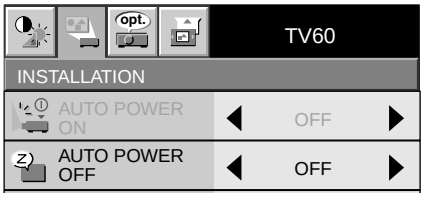
Several settings can be adjusted using Menu.

EXAMPLE: Auto power off time setting

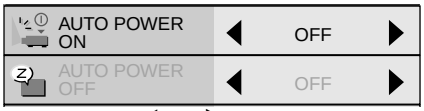
1. Press the MENU button.

2. Press the ◀ or ▶ button to select the INSTALLATION menu.

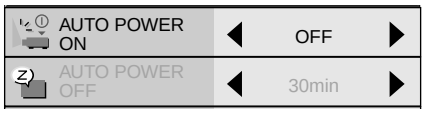
3. Press the ENTER button (or ▼ button).




4. Press the ▲ or ▼ button to select AUTO POWER OFF.



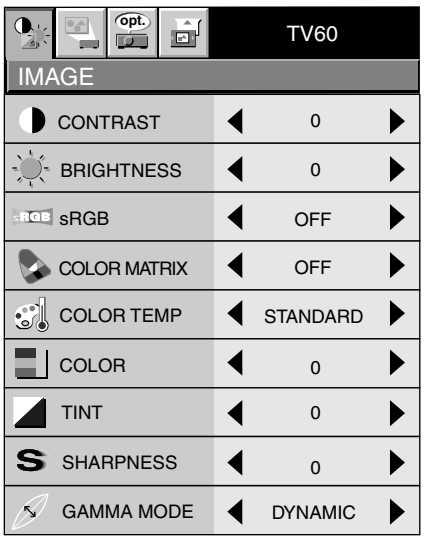

5. Press the ◀ or ▶ button to adjust auto power off time.




6. Exit the menu system by pressing the MENU button several times.

- If the menu operation is not working, turn off the main power, wait about 10 minutes, and turn on the main power again.
- The settings with ↵ mark, you should press the ENTER button after selecting.

① **IMAGE**




CONTRAST ..... Adjusts the picture contrast. The contrast becomes higher as the number increases.

BRIGHTNESS .... Adjusts the image brightness. The image becomes brighter as the number increases.

sRGB ..... Select ON to display an image emphasizing on the color reproducibility.

- When sRGB is ON, COLOR MATRIX, COLOR TEMP or GAMMA MODE can't be adjusted.

COLOR MATRIX ..... Adjusts the color balance in each color of the image. See page 18.

COLOR TEMP. ... Adjusts the color temperature. See page 18.

COLOR ..... Adjusts the color intensity of the image. (Available only when VIDEO is selected as the source.)

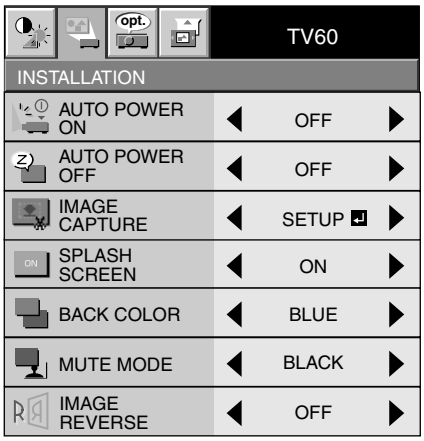
TINT ..... Adjusts the color balance of the image. The color balance of the image shifts green as the number increases and shifts to purple as the number decreases. (Available only when VIDEO is selected as the source.)

- TINT cannot be adjusted when a TV50 (PAL or SECAM) signal is being displayed.

SHARPNESS ..... Adjusts the image sharpness. The image sharpness rises as the number increases. (Available only when VIDEO is selected as the source.)

GAMMA MODE . Select DYNAMIC for computer sources. Select STANDARD for sport scenes and video sources. Select THEATER for projecting film sources.

② **INSTALLATION**




AUTO POWER ON .... Select ON to boot up the projector automatically by turning on an externally connected power switch such as a breaker even when the main power switch of the projector is off. Use this setting when the projector is hanging from the ceiling.

- The projector will be in the stand-by mode when the lamp is off. Use the remote control to turn on the lamp.

AUTO POWER OFF .. Set the time elapsed before the projector enters into the stand-by mode when there is no signal present at the selected source.

IMAGE CAPTURE .... Capture the screen for Splash screen. See page 23.

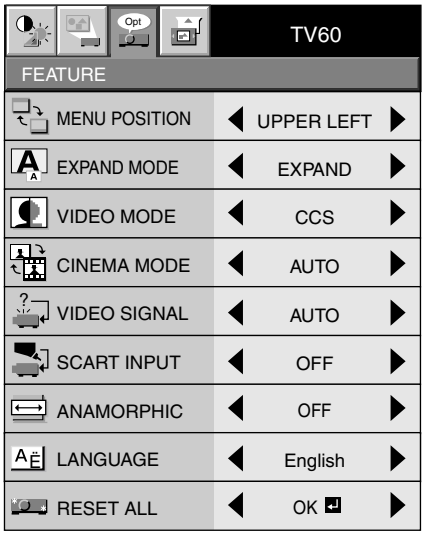
SPLASH SCREEN ..... Select ON to display the splash screen when the power is turned ON.

BACK COLOR .... Select the color of the background to blue or black, this will be displayed when there is no signal present at the selected source.

MUTE MODE ..... Use to select the background, BLACK or IMAGE, which will be displayed when the MUTE button is pressed. When the IMAGE is selected, the splash screen will be displayed.

IMAGE REVERSE ..... Use to reverse or invert the projected image. Select MIRROR in rear projection. Select MIRROR, INVERT in rear projection with the projector hanging from the ceiling.

③ **FEATURE**




MENU POSITION ..... Use to select the position of the menu on the screen, UPPER LEFT or LOWER RIGHT.

EXPAND MODE .. Select the mode for enlarging screen. See page 20.

VIDEO MODE .... Use to select the modes of the high quality line doubler. Select CCS for the Cross Color Suppression mode. Select CCS+DCDi for the Cross Color Suppression and DCDi mode. Select DCDi for DCDi mode. Select OFF for through mode.

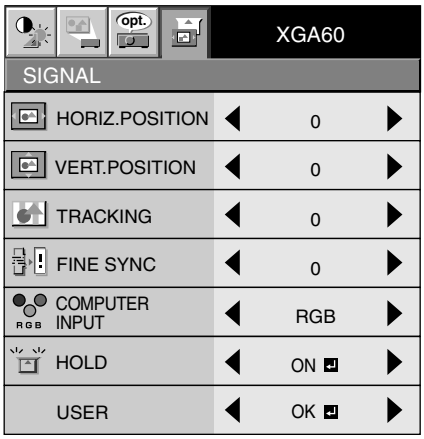
- Though square-shaped noise may appear in the projected image when except OFF is selected, this is not failure. If it is obtrusive, select OFF. It may take time to switch from/to OFF. Though the image is not displayed correctly in this time, it is not a failure.
- A playback signal on a deteriorated videotape or a poor-quality signal may not be projected properly. When projecting such a signal, change the setting of the Video mode and check the projection quality.

CINEMA MODE .. When ON is selected, the film mode will be automatically activated when a film source signal is inputted. When OFF is selected, the film mode will not be activated.
VIDEO SIGNAL ... When AUTO is selected, the appropriate video format is automatically selected depending on the input signal. If the image isn't displayed correctly, select the desired video format manually.
SCART INPUT ... Select ON when connecting with a device equipped with the SCART terminal that can output RGB signal. SCART terminal is used mainly in Europe. Select OFF normally.
ANAMORPHIC ... Select ON when playing DVD discs containing data of widescreen images.
LANGUAGE ..... Use to select the language used in the menus. (日本語 / English / Español / Deutsch / Français / Italiano / 中文 / 한국어 / РУССКИЙ / PORTUGUÊS)
RESET ALL ..... Use to reset the MENU settings (except LANGUAGE).

- When SCART is set to ON, nothing is output to the external monitor.
- When SCART is set to ON, normal computer signals are not projected.
- Use optional SCART-Mini D-SUB 15P cable, when connecting with AV device equipped with the SCART terminal.
- Some AV devices equipped with the SCART terminal may not be compatible with the projector.
- When VIDEO SIGNAL is set to AUTO, the image may not be projected with correct colors. Change the setting of VIDEO SIGNAL depending on the input signal in such cases.

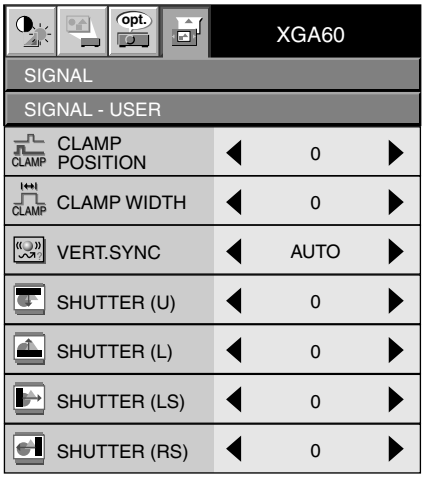
④ **SIGNAL**

HORIZ. POSITION .... Use to adjust the horizontal position of the image.
VERT. POSITION ..... Use to adjust the vertical position of the image.
TRACKING ..... Use to avoid image noise such as wide stripes.
FINE SYNC. ..... Use to synchronize the projector with PC input signals so that the image is not blurred.
COMPUTER INPUT ..... This will be set automatically to match the input signal to component video ($YC_BC_R$/$YP_BP_R$) or RGB. This can be overridden as required.
HOLD ..... Adjusts the image when flagging occurs near the top of the screen.




⑤ **SIGNAL - USER** (Normally, there is no need for adjustments.)

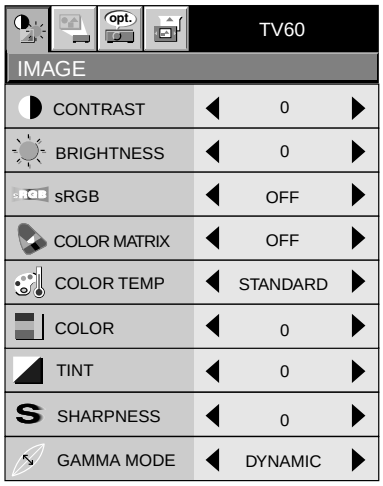
CLAMP POSITION/
CLAMP WIDTH ..... If you use something similar, the brighter colors of the projected image may become blurred. In this case, adjust CLAMP POSITION or CLAMP WIDTH.
VERT. SYNC ..... Use to adjust the image when its motion does not run smoothly. When VIDEO is selected as the source, select AUTO normally. When COMPUTER is selected as the source, select OFF normally. Especially when the motion in the projected image doesn't run smoothly, select AUTO.
SHUTTER(U) ..... Use to adjust the image when the noise etc. appears on top part of image.
SHUTTER(L) ..... Use to adjust the image when the noise etc. appears on bottom part of image.
SHUTTER(LS) .... Use to adjust the image when the noise etc. appears on left side of image.
SHUTTER(RS) ... Use to adjust the image when the noise etc. appears on right side of image.



# Picture adjustment

## Adjusting the image

You can adjust the picture by using the IMAGE menu.




**To control the level of white-to-black in the image :**
Adjust CONTRAST in the IMAGE menu. Press the ▶ button to increase the contrast and the ◀ button to reduce it.

**To control the light level of the image :**
Adjust BRIGHTNESS in the IMAGE menu. Press the ▶ button to lighten the image and the ◀ button to darken the image.

**To determine the intensity of the color :**
Adjust COLOR in the IMAGE menu. Press the ▶ button to increase the amount of color in the image and the ◀ button to decrease it.

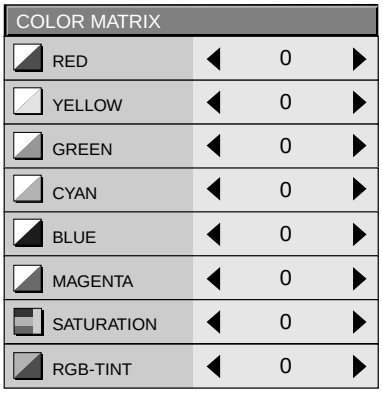
**To adjust the red-green color balance of the image :**
Adjust TINT in the IMAGE menu. Press the ▶ button to increase the amount of red in the image and the ◀ button to increase the amount of green in the image.

**To adjust the detail and clarity of the image :**
Adjust SHARPNESS in the IMAGE menu. Press the ▶ button to make the picture seem sharper and the ◀ button to make it softer.

## Color matrix

This feature adjusts the color balance of the primary colors (red, green, blue), and secondary colors (yellow, cyan, magenta). You can use the color matrix adjustment to emphasize a specific color without changing the appearance of any of the other colors.

1. Select COLOR MATRIX in the IMAGE menu.
2. Press the ◀ or ▶ button to select USER↵ .
3. Press the ENTER button.

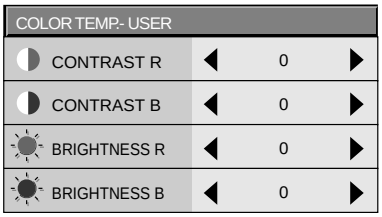



4. Press the ▲ or ▼ button to select the desired color.
   - If you wish to adjust the color intensity of the image, select SATURATION.
   - If you wish to adjust the all color balance of the image, select RGB-TINT.
5. Press the ◀ or ▶ button to adjust the color balance of the color.
6. Repeat steps 4 and 5 for more adjustments.
7. Exit the menu system by pressing the MENU button several times.

- When using the setting which has been already prepared, select desired position VIDEO or COMPUTER in step 2. When the source is selected to VIDEO or S-VIDEO, VIDEO will be selected automatically. When the source is selected to COMPUTER, COMPUTER will be selected automatically.
- When not using Color matrix adjustment, select OFF in step 2.

## Color temperature

1. Select COLOR TEMP. in IMAGE menu.
2. Press the ◀ or ▶ button to select USER↵.
3. Press the ENTER button.




4. Press the ▲ or ▼ button to select the desired item.
5. Press the ◀ or ▶ button to adjust the item.
6. Repeat steps 4 and 5 for more adjustments.
7. Exit the menu system by pressing the MENU button several times.

**About color temperature**
The appearance of white can be affected by adjusting the color temperature. With low color temperature, white appears reddish and with high color temperature white appears to become more bluish. The color temperature can be manually controlled by adjusting the red and blue contrast level.
To set the color temperature high:
Set the contrast B (Blue) to a high number and the contrast R(Red) to a low number.
To set the color temperature low:
Set the contrast B (Blue) to a low number and the contrast R(Red) to a high number.

## Expand

By pressing the EXPAND button on the remote control, you can magnify the detailed image of the picture.

**Using the Expand mode**

1. Press the EXPAND button.

- You can magnify different areas of the active picture by pressing the ▲, ▼, ◀, ▶ button.
- You can change the magnification of the zoomed area by pressing the + or - button.

2. Press the EXPAND button on the remote control again.
   The normal screen display will appear on the screen.

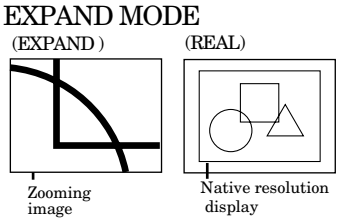
- **Display enlargement does not work with video input or S-video input.**
- The EXPAND mode will not work with certain signals.

**REAL screen display**

You can view the screen displaying the picture as its original size (native resolution display).

**Setting the Expand mode for REAL screen display**

1. Press the MENU button.
2. Press the ◀ or ▶ to select the Feature menu.
3. Press the ENTER button.
4. Press the ▲ or ▼ button to select Expand Mode.
5. Press the ◀ or ▶ to set the EXPAND to REAL.




6. Press the MENU button twice to exit the menu system.

**Viewing the REAL screen display**

1. Press the EXPAND button.
2. Exit the REAL mode, by pressing the EXPAND button again.
   The normal screen display will appear on the screen.

- **Display enlargement does not work with video input or S-video input.**
- During REAL mode, Press the ◀ or ▶ buttons for fine adjustment.
- During REAL mode, the ▲ and ▼ buttons are not working. At this time, the prohibition mark (⃠) appeares on the screen.

## Picture in Picture (PinP)

One of the special features of this unit is the picture-in-picture (PinP) mode. PinP allows you to view different sources at the same time.

**Using the PinP mode**

1. Press the PinP button on the remote control.
   When the image from the COMPUTER IN terminal is displayed on the screen, the image from VIDEO IN or S-VIDEO IN terminal is displayed as sub-image.

- You can change the input source of the sub image by pressing the VIDEO button.
- When the COMPUTER button is pressed, the input source of the main image will be changed and the sub image will disappear.
- When the image from the VIDEO IN or S-VIDEO IN terminal is displayed on the screen, the PinP will not work.
- The PinP mode will not work with certain signals.

To change frame position

2. Press the ◀ or ▶ buttons on the remote control.
3. Press the PinP button on the remote control again.
   The sub image will disappear.

- In PinP mode, the audio of the Main image is output.
- In PinP mode, if the signal of the Main image is lost, the sub image will disappear.

## Still

How to stop the picture temporarily (still picture).

1. Press the STILL button on the remote control.
   The picture will be freezed temporary.

To resume picture activity.

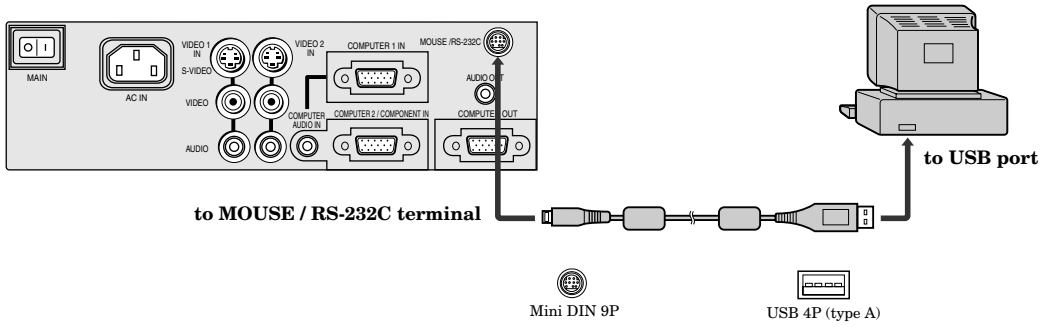
2. Press the STILL button on the remote control again.

## Mouse remote control

By connecting to personal computer through the USB or PS/2 port, you can operate your computer with the projector remote control.

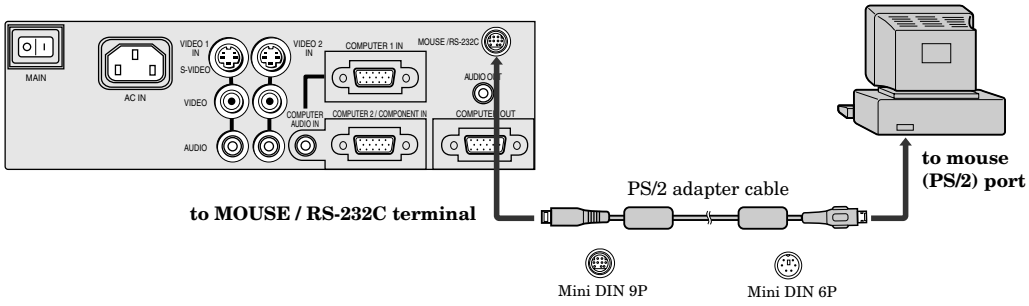
## Connection

### Projector + PC through USB connector



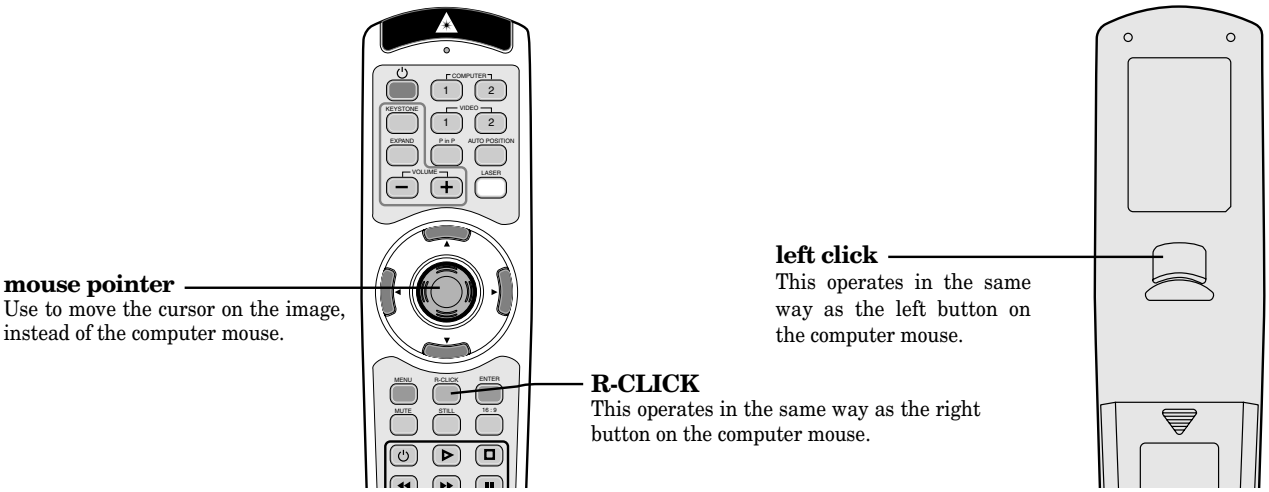

- Only PCs that support a USB mouse can be operated in this way.
- When the lamp is turned ON, the computer connected with the USB cable may not work correctly. In this case, restart the projector and the computer. If possible, you should connect the USB cable after the lamp is turned ON.

### Projector + PC through PS/2 connector




- Turn off the PC and the projector before connecting to the PCs PS/2 port. If you connect the PS/2 cable when the personal computer is on, the remote control mouse may not work. In that case, turn the projector on, then restart the personal computer.
- When you use an extension cable, the function may not work correctly.

## Operation

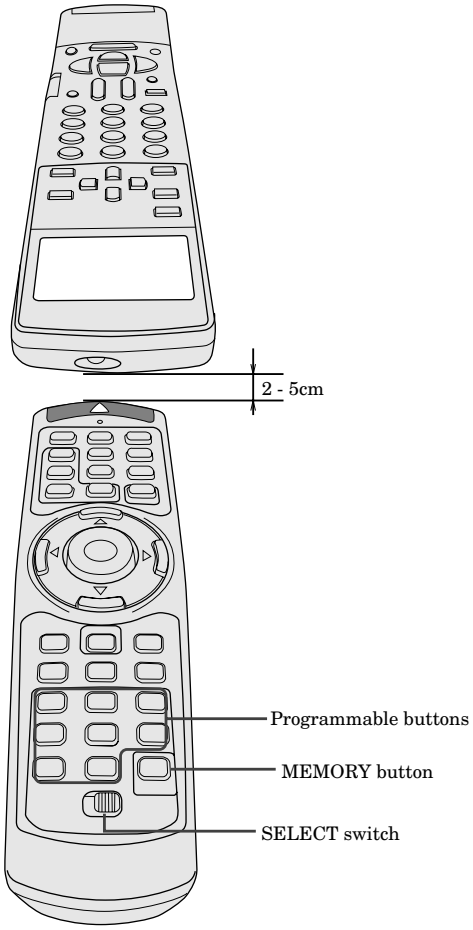

mouse pointer
Use to move the cursor on the image, instead of the computer mouse.
left click
This operates in the same way as the left button on the computer mouse.
R-CLICK
This operates in the same way as the right button on the computer mouse.

## Installation other device's remote commands

You can install other device's remote commands in the remote control of this projector.

**How to install**

1. Set the SELECT switch of the remote control of this projector to DVD or VIDEO, depending on the device you use.
2. Place the remote control of this projector and that of the other device with their transmission windows 2-5 cm apart.




3. Press the MEMORY button.
   - The MEMORY button will blink red.
   - To cancel the installation, press the MEMORY button again.
4. Press any programmable button on the remote control of this projector.
   - The MEMORY button will stop blinking and stay on.
   - When no button is pressed for 6 seconds after step 3 and 4, the MEMORY button will go out automatically.
5. Hold down the button on the other device's remote control whose command you want to install until the MEMORY button start blinking.
   - When the MEMORY button blinks six times and then goes out, the function has been installed successfully.
   - When the MEMORY button doesn't blink before going out, the installation has failed.
   - To continue to install other functions, repeat step 3 to 5.

- Some special commands are not memorized, depending on the type of the remote control.
- Do not install any remote commands of other devices including air conditioners than video devices.

**How to use the installed functions**

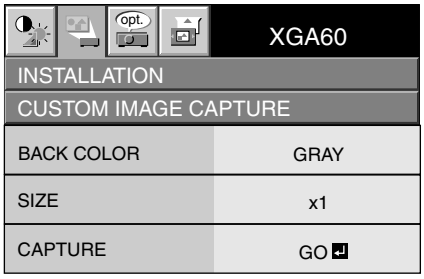
1. Set the SELECT switch of the remote control of this projector to DVD or VIDEO, depending on the device you use.
2. Press the programmable button in which the desired remote command has been installed.

## How to change the image displayed at the time of startup or mute

You can display a desired image on the startup screen (splash screen). You can also use such image instead of the back color screen while the mute is on or no signal is supplied by setting the menu.

**Setting procedure**

1. Press the COMPUTER button to select the image supplied to the COMPUTER input.
2. Display a desired image.
3. Display the INSTALLATION menu.
4. Select CAPTURE by pressing the ▲ or ▼ button.
5. Press the ENTER button.
   The setting menu will be displayed.




**Set the background color**

(Set the background color only when you set the image size to x1 or x2.)

6. Select BACK COLOR by pressing the ▲ or ▼ button.
7. Select a desired color for the background (GRAY, RED, GREEN, BLUE, BLACK, WHITE, RED50%, GREEN50% or BLUE50%) by pressing the ◀ or ▶ button.

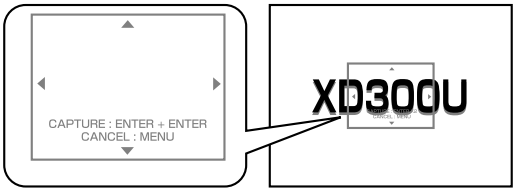
**Set the image size**

8. Select SIZE by pressing the ▲ or ▼ button.
9. Select x1, x2, or FULL by pressing the ◀ or ▶ button.

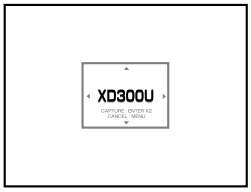
x1 x2 FULL

**Capture the image**

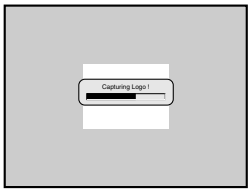
10. Select CAPTURE by pressing the ▲ or ▼ button.
11. Press the ENTER button.
    A red frame appears. (The size of the red frame is 295x222 pixels.)




12. Adjust the size of the image to be captured so that such image stays within the red frame.
    - Press the ▲, ▼, ◀ or ▶ button to move the red frame.




    - You can't move the red frame outside the screen.
13. Press the ENTER button twice.
    - Image capture will start.




    - Press the MENU button to cancel the procedure.
    - When the image capture completes, the captured image will be displayed for three seconds.

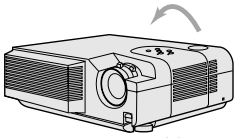
- You can't change the new screen back to the original startup screen. (Even when you select RESET ALL in the FEATURE menu, the default screen at the time of shipment from the factory isn't available any longer.) When you want to change the startup screen again, capture another image for it.
- The captured image will be displayed from the next startup. If the captured image isn't displayed, make sure that the setting of the SPLASH SCREEN in the INSTALLATION menu isn't OFF. (See page 16.)
- To display the captured image while the mute is on, select IMAGE for the MUTE MODE in the INSTALLATION menu. (See page 16.)
- When IMAGE is selected for the BACK COLOR in the INSTALLATION menu, the captured image will be displayed while no signal is supplied.
- Some images can't be captured correctly depending on their signal type.

# Lamp replacement

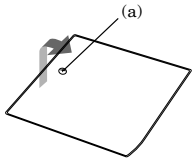
When the lamp no longer functions, replace it with a new one.

**Caution:**
- Do not remove the lamp immediately after turning off the projector, the high temperature of the lamp can burn you.
- For lamp replacement, press the power button to power off, then wait for 120 seconds in stand-by mode to allow the lamp to cool. Then turn off the main switch, unplug the power cord from the outlet, and wait one hour so that the lamp is cooled to the touch.
- Do not remove the lamp except for replacement. Careless treatment can cause injury or fire.
- Do not touch the lamp element directly. It may break and cause you to injure or burn yourself.
- Be sure not to drop the lamp lid screw into the projector. Also be sure not to insert metal or any flammable objects, it may cause fire or electric shock. If any objects are inserted, please unplug and contact your dealer.
- Install the lamp securely, failure may cause a fire.
- If the light bulb part breaks, some small glass fragments may fall out through the small cooling grille, and stick to the inside of projector or the lamp box. When taking the lamp out, make sure to turn over the projector and hold the handle of the lamp box to avoid injury from the glass fragments.
- Never shake the lamp or hold it in front of your face after removingthe lamp box. The glass fragments may fall out and cause injuries to your eyes and so on.

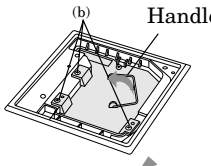
1. Gently turn the projector over.



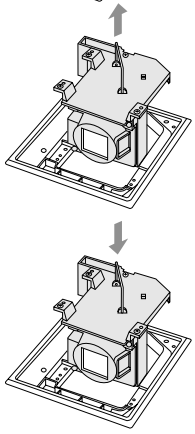
2. Loosen the screws of the lamp lid (a) using a phillips screwdriver (+), and remove the lid.
   - Remove the lamp cover in the direction of the arrow as indicated.



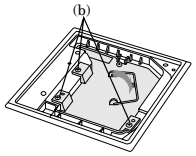

3. Loosen screws (b) using a phillips screwdriver (+).
4. Pull up the handle.



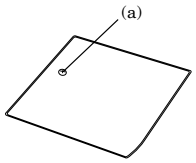

5. Hold onto the projector by the handle as you pull out the lamp.
   - Pull out the lamp straight upward.
   - Pull the lamp out of the projector slowly. Should the light bulb be broken, glass fragments will spill out if the lamp is pulled out too quickly.
   - Once the lamp has been removed, do not spill liquid on it, place it near flammable objects or where children can touch it. Otherwise, it may cause injury or fire.



6. Insert the new lamp securely into the projector body in the right direction.
7. Put the handle back to the holding point.




   - Make sure that the handle is locked.




8. Tighten up the screws (b) using a phillips screwdriver (+).
9. Tighten up the screws of the lamp lid (a) using a phillips screwdriver (+).

**How to reset the operation time meter**
Plug in the power cord, turn on the main power switch, and reset lamp time by pressing the VIDEO button and ENTER button for 3 seconds simultaneously.
- Make sure that the STATUS indicator flashed twice and the operation time meter has been reset.

**Caution:**
- Do not spill liquid on the lamp or place it near flammable objects or where children can touch it. Otherwise, it could cause injury or fire.
- Be sure that the projector guide is firmly inserted between the right and left lamp guides.

**Important:**
- The projector will not turn on if you do not secure the lamp lid.
- You must reset the **operation time meter** after you replace the lamp.
- Do not reset the operation time meter unless the lamp has been replaced.

## Interval of the lamp replacement

The interval of the lamp replacement about 4,000 hours of consecutive use. Replacement span may differ according to operating environment, and may be shorter than 4,000 hours. Decreases in luminescence and/or color brightness will indicate that the light source lamp needs to be replaced. When lamp operation time exceeds 3,000 hours, the indicator will flash alternately between green and red (while the lamp is in operation; when the lamp is not in operation, the indicator will appear red only) and the lamp replacement message will appear on the screen for one minute everytime the power is turned on. When the lamp has been used for about 3,500 hours, the replacement message (LAMP:>3500H) will appear on the screen for one minute everytime 10 hours after. When the lamp has been used for about 4,000 hours, the projector will automatically shut off for safety and the STATUS indicator light will be red. The projector cannot be used until the lamp has been replaced and operation timer has been reset.

**Caution:**
- The lamp is fragile. If broken, be careful not to cut yourself with glass fragments.
- The replacement span of the lamp depends on the environment. For replacement lamps, please contact your dealer.

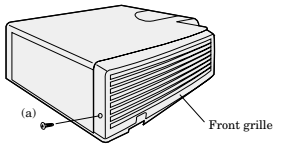
**The projector automatically shuts off when the lamp life exceeds 4,000 hours and cannot be used until the lamp is replaced and the internal timer is reset.**

**Caution:**
Be sure to turn off the projector and unplug the power cord from the wall outlet before you perform any maintenance on the projector.

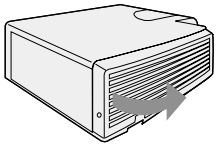
## Cleaning the air-filter

Clean the air-filter frequently (at least once a month). If the filter or ventilation slots become clogged with dirt and dust, the temperature inside the projector may rise to cause troubles, such as damage to the inside parts, and shorten the life of the panel.

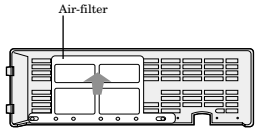
- Even if the air-filter is cleaned periodically, it will deteriorate in its performance with time. Replace the air filter with a new one once a year. Consult your dealer about purchase of a new air-filter.
- When the temperature inside the projector rises, the STATUS indicator will blink red and the power will be shut off to be on standby with the LAMP indicator turned off.




1. Remove the screw (a) of the front grille using a Phillips screwdriver.
   - Be careful not to lose the removed screw.



2. Pull the front grille in the direction of the arrow. Release the two hooks and remove the front grille.
   - Do not pull the front grille forcibly when releasing the two hooks from the projector.




3. Remove the air-filter from the front grille.
4. Clean dirt and dust on the air-filter using a vacuum, or replace the air-filter with a new one.
   - Use water or a mild detergent diluted with water to clean stubborn dirt from the air-filter. Rinse the air-filter thoroughly and let it dry completely.
5. Attach the air-filter to the front grille.
   - Attach the air-filter so that it is retained by the seven protrusions inside the front grille. Then spread the air-filter on the front grille by pressing it. (Make sure that the air-filter is caught by the protrusions, which prevent it from being displaced.)
6. Attach the front grille to the projector.
   - Make sure that the air-filter is attached correctly without being displaced.
7. Tighten up the screw (a) using a Phillips screwdriver.

**Important:**

- If the filter is damaged or becomes extremely dirty, change to the provided new filter. If you wish to another new filter, contact your dealer for replacement.
- The power will not turn on if the air-filter cover is improperly installed.

**Caution:**
Be sure to use the projector with an air-filter. If not, dust may get inside the projector, causing a fire or a breakdown.

## Cleaning the projector and the ventilation slots

Use a soft cloth to clean the projector and the ventilation slots. When the slots become dirty, wipe them with a soft cloth dampened with a diluted mild detergent, and then wipe them with a dry cloth.
To protect the surface of the projector from fading or deteriorating:

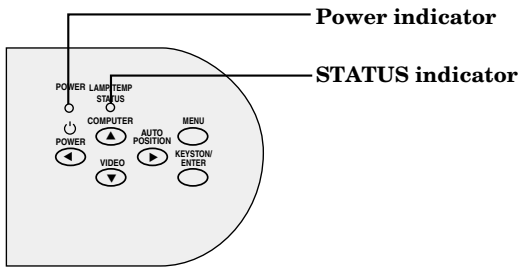
- Do not spray insecticide on or inside the projector.
- Do not use benzine or thinner to clean it.
- Do not let rubber or plastic materials come into contact with the projector.

## Cleaning the lens

Use a standard lens-cleaning brush or a piece of lens tissue dampened with lens cleaning fluid. The lens surface is fragile. Use only recommended, nonabrasive lens-cleaning materials. Do not touch the lens with your fingers.

# Indicators

The projector has two LED Indicators which show the working condition of the projector.
The below table offers solutions to possible problems. If a problem persists, turn the projector off and consult your dealer.




## Normal condition

| Power | STATUS | CONDITION | Notes |
|---|---|---|---|
| Steady red | Off | Stand-by | |
| Steady green | Blinking green | Lamp stand-by (about for 1 minute) | The power button cannot be used to switch ON and OFF |
| Steady green | Steady green | The POWER is ON. (Normal condition) | |

## Abnormal condition

| Power | STATUS | CONDITION | POSSIBLE SOLUTIONS |
|---|---|---|---|
| Steady green or Steady red | Blinking orange | Unusual temperature<br>• The ventilation slits or air filter is clogged with dust or debris.<br>• The room temperature is too high.<br>• The filter is dirty. | • Remove the object from the ventilation slits.<br>• Relocate the projector to a cooler place.<br>• Clean the filter. |
| Steady red | Blinking green | The protection circuit is working or the lamp is in an abnormal condition. | • Wait until the STATUS indicator is turned off, then press the POWER button.<br>• If the above operation is not effective, replace the lamp. |
| Steady green | Blinking green/red | Lamp duration warning. (Lightning duration total about 3,000 hours.When the POWER is ON.) | Replace the lamp.<br>Exchange with a new lamp if the same problem recurs. |
| Steady red | Blinking red | Lamp duration warning. (Lightning duration total about 3,000 hours.When the POWER is OFF.) | |
| Steady red | Steady red | Lamp duration warning. (Lightning duration total about 4,000 hours.) | |
| Blinking green/red | Off | The lamp cover is not closed. | Close the cover correctly. |
| Blinking green/red | Steady or Blinking | Abnormal. | Contact your dealer. |

# Troubleshooting



The following offers solutions to some of the common problems you may encounter. We suggest that you consult this chart before contacting your dealer.

| PROBLEMS | CAUSE | POSSIBLE SOLUTIONS |
|---|---|---|
| The power is off. | • The air inlet grille, outlet grille or air filter is clogged with dust or some other obstruction. | • Remove the obstruction. |
| | **POWER indicator does not light up.** | |
| | • Power cord is unplugged from the outlet. | • Plug the power cord into the outlet. |
| | • Power cord is disconnected from the projector. | • Insert the power cord into the projector. |
| | • The main switch is turned off. | • Turn the main switch on. |
| | • The lamp lid is open. | • Close the lamp lid. |
| | **Power indicator blinks red.** | |
| | • The projector has been turned on again too soon after having been turned off. | • Wait for the lighting sequence. |
| | • When the power switch was turned off while the fan was running, during or after lamp operation. | • Turn the power switch on and off several times. |
| | • The room temperature is too high. (Does the STATUS indicator show an unusual condition?) | • Refer to "Indicators" on page 26. |
| | • Lamp is no longer working. | • Replace the lamp with a new one. |
| | **POWER indicator blinks between red and green.** | |
| | • The lamp cover is not closed. | • Close the cover correctly. |
| | • When the STATUS indicator is on or blinking, the main unit requires repairs. | • Contact your dealer. |
| No picture appears on the screen. | • Lens is covered by lens cap. | • Take the lens cap off. |
| | • When the STATUS indicator is on or blinking, the main unit requires repairs. | • Replace the lamp with a new one. |
| | • The equipment connected to this projector is not turned on. | • Turn on the connected equipment. |
| | • Other equipment is not connected properly. | • Confirm the connections. |
| | • The input source is not selected correctly. | • Select the correct source according to the equipment connected to this projector. |
| | • A long RGB cable is being used instead of the attached RGB cable. | • Check whether a picture appears or not using the attached RGB cable. If a picture appears, use an RGB signal amplifier in addition to the long RGB cable. |
| The image is turned off. | • The air inlet grille, outlet grille or air filter is clogged with dust or obstructed. (In this case, the STATUS indicator does not light up.) | • Remove the obstruction and turn off the main power switch. After about 10 minutes, turn the projector on. |
| The image is distorted. | • The projector is not at a right angle to the screen. | • Adjust the angle of the projector to make a right angle to the screen. See page 12. |
| The image is dark. | • Brightness, tint and color are not adjusted correctly. | • Adjust brightness, tint and color correctly. |
| The image is blurred. | • The projecting distance is beyond the focused area. | • Adjust the projecting distance. See page 9. |
| | • Lens is dirty. | • Clean lens. |
| | • Screen size exceeds screen size specifications. | • Use a screen size to within 40" to 300". |
| | • Brightness and contrast are not adjusted correctly. | • Adjust brightness, contrast. |
| | • FINE adjustment is not made correctly. | • Make FINE adjustment. |
| | • Tracking is not adjusted. | • Adjust tracking. |
| | • The projector is not at a right angle to the screen. | • Adjust the angle of the projector to make a right angle to the screen. See page 12. |
| The image is distorted on the screen and noise is heard. | • The cable for connection with other equipment is not plugged securely into the terminal. | • Plug the connecting cable securely into the terminal. See pages 10-11. |
| | • The projector is installed too close to other equipment. | • Increasethe distance between the projector and other equipment. |
| No sound is heard. | • Volume is not turned up. | • Turn up the volume. |
| | • Connection to other equipment is not made correctly. | • Check connections. See pages 10-11. |
| Nothing is displayed on the PC monitor. | • The PC monitor is not turned on. | • Turn on the monitor. |
| Warm air comes out of the exhaust vents. | • This is typical of the projector. | |
| A rainbow blur appears on the image. | • Such blur appears based on the principle of the DLP system. It isn't a failure. | |
| Adjustments cannot be made. | • The operation is incorrectly made due to noise or interference. | • Turn off the main power, wait about 10 minutes, and turn on the main power again. |
| ⃠ is displayed. | • This mark is displayed when an invalid operation is executed. This is not failure. | |

# Specifications

| | |
|---|---|
| Type | DLP™ DATA projector |
| Model | XD300U |
| Rated power supply | AC100V - 240V, 50 / 60Hz |
| Rated input | 2.7 A |
| Display Technology | 0.7" Single chip Digital Micromirror Device (DMD) with R,G,B,W color wheel |
| Resolution | 1,024 × 768 (Total 786,432 pixels), 500 Video lines |
| Colors | 16,770,000 colors |
| Projection lens | F 2.4 - 2.7 f = 33.7 mm - 38.8 mm |
| Light source lamp | 200 W |
| Picture size | 40 inch - 300 inch (aspect ratio 4:3) |
| PC compatibility | Resolution : 640 x 400 (Expand) - 1,024 x 768 (Real) - 1,600 x 1,200 (Compress)<br>Sync on Green available |
| Video compatibility | NTSC / NTSC 4.43 / PAL (including PAL-M, N) / SECAM, PAL-60<br>DVD (Component) / HDTV (1080i) / 720p / 525p |
| Audio output | 2 W mono |
| Speaker | Round type (8Ω 2W) |
| S-video input | Luminance signal: Vp-p=1.0V 75Ω (negative sync.)<br>Chroma signal: Vp-p=0.286V 75Ω (burst signal) |
| Video input | Vp-p=1.0V 75Ω (negative sync.) |
| Audio inputs | 350 mVrms, 10kΩ or more |
| Analog RGB input (mini D-SUB 15P) | RGB: Vp-p=0.7V 75Ω<br>$YC_BC_R$: Y: Vp-p=1.0V (negative sync.) $C_BC_R$: Vp-p=0.7V<br>HD/CS : TTL level (positive or negative)<br>VD : TTL level (positive or negative) |
| Control connector | Serial (DIN 9 pin female connector) RS-232C standards |
| Outside dimensions | 300 mm × 96 mm × 245 mm (11.8 inch × 3.8 inch × 9.6 inch)<br>(width × height × depth) Legs are not included. |
| Weight | Approx. 3kg |
| Length of power cord | 2.9 m ( 9.5 feet) |
| Temperature, humidity (performance guarantee) | +41°F (+5°C) - +95°F (+35°C), 30 - 90% |

**Kensington Lock**

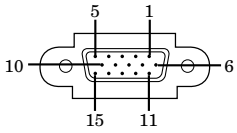
This projector has a Kensington Security Standard connector for use with a Kensington MicroSaver Security System. Refer to the information that came with the Kensington System for instructions on how to use it to secure the projector. Please contact to Kensington Technology Group as shown below.

Kensington Technology Group
2855 Campus Drive
San Mateo, CA 94403, U.S.A.

Phone : +1-(650)572-2700 Fax : +1-(650)572-9675

## Connectors

**PC analog RGB input**
Use to input video signals (analog RGB) of a personal computer.

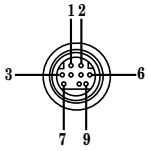



(Pin assignment of Mini D-SUB 15P jack)

| PIN NO. | SPEC | PIN NO. | SPEC | |
|---|---|---|---|---|
| 1 | R(RED)/$C_R$ | 9 | – | |
| 2 | G(GREEN)/Y | 10 | GROUND | |
| 3 | B(BLUE)/$C_B$ | 11 | GROUND | |
| 4 | GROUND | 12 | DDC-DATA | *1 |
| 5 | GROUND | 13 | HD/CS | |
| 6 | GROUND | 14 | VD | |
| 7 | GROUND | 15 | DDC-CLK | *1 |
| 8 | GROUND | | | |

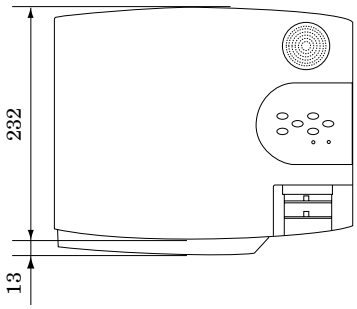
*1) For COMPUTER 1 IN

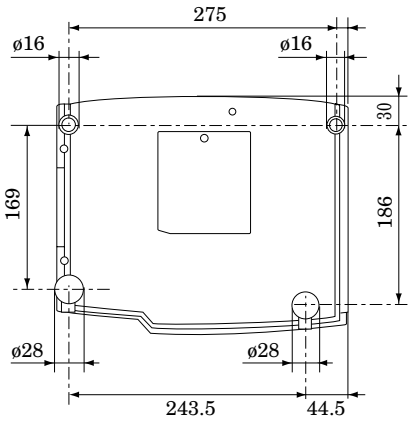
**RS-232C input**
Use to control the projector with the personal computer, or control the personal computer with remote control. Use the RS-232C cable (Mini DIN 9P-D-SUB 9P) for the connection. For more details, consult your dealer.

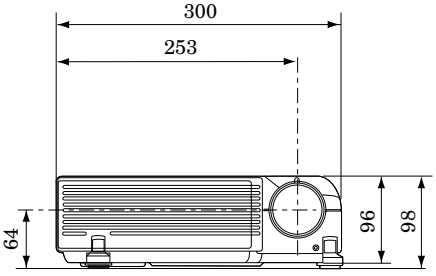


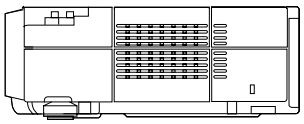

| PIN NO. | NAME | I/O |
|---|---|---|
| 1 | RXD | IN |
| 2 | USB - | OUT |
| 3 | USB Vcc | IN |
| 4 | GND | – |
| 5 | PS/2 Vcc | IN |
| 6 | PS/2 CLK | OUT |
| 7 | TXD | OUT |
| 8 | PS/2 DATA | OUT |
| 9 | USB + | OUT |

## Dimensional drawings (mm)



## What's included in the box

| | | | | | |
|---|---|---|---|---|---|
| 2 | AC power cord | 246C383-10 | 1 | Remote control | 939P930-10 |
| | | 246C383-20 | 1 | Light-shielding seal | 620D070-10 |
| 1 | Audio cable | 246C457-10 | 1 | User manual | 871D349-30 |
| 1 | RGB cable for PC | 246C461-10 | 1 | Quick Start up | 857B070-10 |
| 1 | RS-232C cable | 246C429-10 | 2 | Battery for remote | – |
| 1 | PS/2 adapter cable | 246C459-10 | 1 | Carrying case | 772P041-10 |
| 1 | USB adapter cable | 246C460-10 | | | |

## Replacement part (Option / Not included in the box)

| | |
|---|---|
| Spare Mercury lamp | 499B031-10 |
| | (VLT-XD300LP) |

**Specification of RGB signals in each computer mode of the projector**

| Signal mode | resolution (H x V) | horizontal frequency (kHz) | Vertical frequency (Hz) | Normal mode (H x V) | Real mode (H x V) |
|---|---|---|---|---|---|
| TV60 | – | 15.73 | 59.94 | 1024 x 768 | – |
| TV50 | – | 15.63 | 50.00 | 1024 x 768 | – |
| 525p | – | 31.47 | 59.94 | 1024 x 768 | – |
| 625p | – | 31.25 | 50.00 | 1024 x 768 | – |
| 1080i | – | 33.75 | 60.00 | 1024 x 576 | – |
| 1080i50 | – | 28.13 | 50.00 | 1024 x 576 | – |
| 1080i50a | – | 31.25 | 50.00 | 1024 x 576 | – |
| 720p | – | 45.00 | 60.00 | 1024 x 576 | – |
| 720p50 | – | 37.50 | 50.00 | 1024 x 576 | – |
| PC98 | 640 x 400 | 24.82 | 56.42 | 1024 x 640 | 640 x 400 |
| CGA70 | 640 x 400 | 31.47 | 70.09 | 1024 x 640 | 640 x 400 |
| CGA84 | 640 x 400 | 37.86 | 84.14 | 1024 x 640 | 640 x 400 |
| CGA85 | 640 x 400 | 37.86 | 85.08 | 1024 x 640 | 640 x 400 |
| VGA60 | 640 x 480 | 31.47 | 59.94 | 1024 x 768 | 640 x 480 |
| VGA72 | 640 x 480 | 37.86 | 72.81 | 1024 x 768 | 640 x 480 |
| VGA75 | 640 x 480 | 37.50 | 75.00 | 1024 x 768 | 640 x 480 |
| VGA85 | 640 x 480 | 43.27 | 85.01 | 1024 x 768 | 640 x 480 |
| VGA120 | 640 x 480 | 61.89 | 120.17 | 1024 x 768 | 640 x 480 |
| SVGA56 | 800 x 600 | 35.16 | 56.25 | 1024 x 768 | 800 x 600 |
| SVGA60 | 800 x 600 | 37.88 | 60.32 | 1024 x 768 | 800 x 600 |
| SVGA72 | 800 x 600 | 48.08 | 72.19 | 1024 x 768 | 800 x 600 |
| SVGA75 | 800 x 600 | 46.88 | 75.00 | 1024 x 768 | 800 x 600 |
| SVGA85 | 800 x 600 | 53.67 | 85.06 | 1024 x 768 | 800 x 600 |
| SVGA120 | 800 x 600 | 77.11 | 119.93 | 1024 x 768 | 800 x 600 |
| XGA43i | 1024 x 768 | 35.52 | 86.96 | 1024 x 768 | 1024 x 768 |
| XGA60 | 1024 x 768 | 48.36 | 60.00 | 1024 x 768 | 1024 x 768 |
| XGA70 | 1024 x 768 | 56.48 | 70.07 | 1024 x 768 | 1024 x 768 |
| XGA75 | 1024 x 768 | 60.02 | 75.03 | 1024 x 768 | 1024 x 768 |
| XGA85 | 1024 x 768 | 68.68 | 85.00 | 1024 x 768 | 1024 x 768 |
| XGA120 | 1024 x 768 | 98.58 | 119.78 | 1024 x 768 | 1024 x 768 |
| SXGA70a | 1152 x 864 | 63.85 | 70.01 | 1024 x 768 | 1024 x 768 |
| SXGA75a | 1152 x 864 | 67.50 | 75.00 | 1024 x 768 | 1024 x 768 |
| SXGA85a | 1152 x 864 | 77.49 | 85.06 | 1024 x 768 | 1024 x 768 |
| SXGA60b | 1280 x 960 | 60.00 | 60.00 | 1024 x 768 | 1024 x 768 |
| SXGA75b | 1280 x 960 | 75.00 | 75.00 | 1024 x 768 | 1024 x 768 |
| SXGA43i | 1280 x 1024 | 46.43 | 86.87 | 1024 x 768 | 1024 x 768 |
| SXGA60 | 1280 x 1024 | 63.98 | 60.02 | 1024 x 768 | 1024 x 768 |
| SXGA75 | 1280 x 1024 | 79.98 | 75.03 | 1024 x 768 | 1024 x 768 |
| MAC13 | 640 x 480 | 35.00 | 66.67 | 1024 x 768 | 640 x 480 |
| MAC16 | 832 x 624 | 49.72 | 74.55 | 1024 x 768 | 832 x 624 |
| MAC19 | 1024 x 768 | 60.24 | 75.02 | 1024 x 768 | 1024 x 768 |
| MAC21 | 1152 x 870 | 68.59 | 74.96 | 1024 x 768 | 1024 x 768 |
| HP75 | 1024 x 768 | 62.94 | 74.92 | 1024 x 768 | 1024 x 768 |
| HP72 | 1280 x 1024 | 78.13 | 72.00 | 1024 x 768 | 1024 x 768 |
| SUN66a | 1152 x 900 | 61.85 | 66.00 | 1024 x 768 | 1024 x 768 |
| SUN76a | 1152 x 900 | 71.81 | 76.63 | 1024 x 768 | 1024 x 768 |
| SUN66 | 1280 x 1024 | 71.68 | 66.68 | 1024 x 768 | 1024 x 768 |
| SUN76 | 1280 x 1024 | 81.13 | 76.11 | 1024 x 768 | 1024 x 768 |
| SGI72 | 1280 x 1024 | 76.92 | 72.30 | 1024 x 768 | 1024 x 768 |
| SGI76 | 1280 x 1024 | 82.00 | 76.00 | 1024 x 768 | 1024 x 768 |
| IBM60 | 1280 x 1024 | 63.42 | 60.00 | 1024 x 768 | 1024 x 768 |
| UXGA48i | 1600 x 1200 | 62.50 | 48.04 | 1024 x 768 | 1024 x 768 |

- When the EXPAND MODE of FEATURE menu is set to real screen display, by pressing the EXPAND button on the remote control, it will switch to the screen displaying the picture as its original size (real screen display). In the real screen display, pictures will be black-framed when picture resolution is lower than 1,024 x 768.

**Important:**
- Some computers may not be compatible with the projector.
- The projector's maximum resolution is 1,024 x 768 pixels. It may not display correctly for the pictures of higher resolutions than 1,024 x 768.
- The picture with a SYNC on G (Green) signal may jitter.
- The picture with a SYNC on G (Green) signal may be tinged with green.
- If the resolution and frequency of your computer are not shown on the table, change the resolution of your computer. You may find the compatible resolution and frequency.
- Set the COMPUTER INPUT in SIGNAL menu to RGB, when inputting the HDTV signal as RGB signal.
- A TV60 or TV50 signal (except SCART input signal) corresponds to component video signal only. When the RGB signal with 5 line form is inputted, the image will not be projected correctly.
- When an unspecified signal is inputted, the projector may not work correctly.